

Statement by Dieter Kaden
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DFS Deutsche Flugsicherung GmbH
(German Air Navigation Services)

Hearing in the U.S. House of Representatives
Subcommittee on Aviation, Washington D.C.
20 April 2005

LONG VERSION



DFS Deutsche Flugsicherung

**U.S. House of Representatives
Committee on Transportation and Infrastructure**

Congressional Hearing

Washington, 20 April 2005

DFS Deutsche Flugsicherung GmbH
Dieser Kasten: April 2005



Mr. Chairman, Ranking Democratic Member, Members of the Subcommittee,

First of all, I would like to thank you very much for your kind invitation and for the opportunity to once again give you an overview of DFS Deutsche Flugsicherung. This time I will also elaborate on the planned privatization of the German air navigation services organization.

The Federal Republic of Germany, the entire staff of DFS and I myself consider this invitation to Washington, the capital of the world's leading aviation nation, as a privilege and a very special honor. Thank you very much!

I want to explain briefly what DFS has achieved in less than twelve years since its foundation.

While airlines and major airports were operating according to private sector principles, the German air navigation services organization was structured as a federal authority for forty years (from 1953 to 1992). Due to this bureaucratic structure, the air navigation services in Germany lacked the required flexibility and increasingly proved to be a bottleneck within the air transport system.

The disadvantages of these structures became all the more apparent with the boom of the air transport system. Projects continuously experienced problems in terms of costs, schedules and performance, and the organization was, thus, unable to deliver

value for money. An organizational culture to encourage collaboration with customers was not in place.

Delays had reached an intolerable level and the technical equipment of the air navigation services could no longer keep pace with technological developments.

Major steps in the process from a federal authority to a commercial enterprise

1. Establish the legal basis: e.g. change of Constitution in 1991
2. Draw up legal framework for the commercial company in 1992
3. Adjust aspects of taxation
4. Founding of DFS in 1993
5. Capital appreciation
6. Fill the official bodies of DFS
7. Establish certain regulations, e.g.
 - ATC staff requirements
 - Requirements for professional training
 - ATM regulations
8. Lay down principles, e.g. for
 - Government duties
 - Allocation of tasks between different bodies (MOT, MOD)
9. Determine the organizational structure (processes and management)
10. Establish certain policies and negotiate wage agreements
11. Work out conditions for the staff transfer into the commercial enterprise
12. Establish a finance and controlling system
13. Define corporate development (corporate strategy, development of organisation)
14. Implement safety and quality management, e.g. Critical Incident Stress Management (CISM), employee incentive scheme (DIPOP)

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Dieter Kaden, April 2005



For these reasons, politicians, ATC organisations as well as all our users strongly advocated the corporatization of this federal authority as early as in the eighties in an effort to modernize the nation's air traffic management system.

Parliament amended the German Constitution and the Aviation Act in 1991 to corporatize the air navigation services and make them a corporation wholly owned by the Federal Republic of Germany.

On 1 January 1993, DFS began operating as a corporatized enterprise in line with private sector principles. Today, DFS is a not-for-profit organization and financially autonomous.

What have we achieved?

1. Management of Air Navigation Services

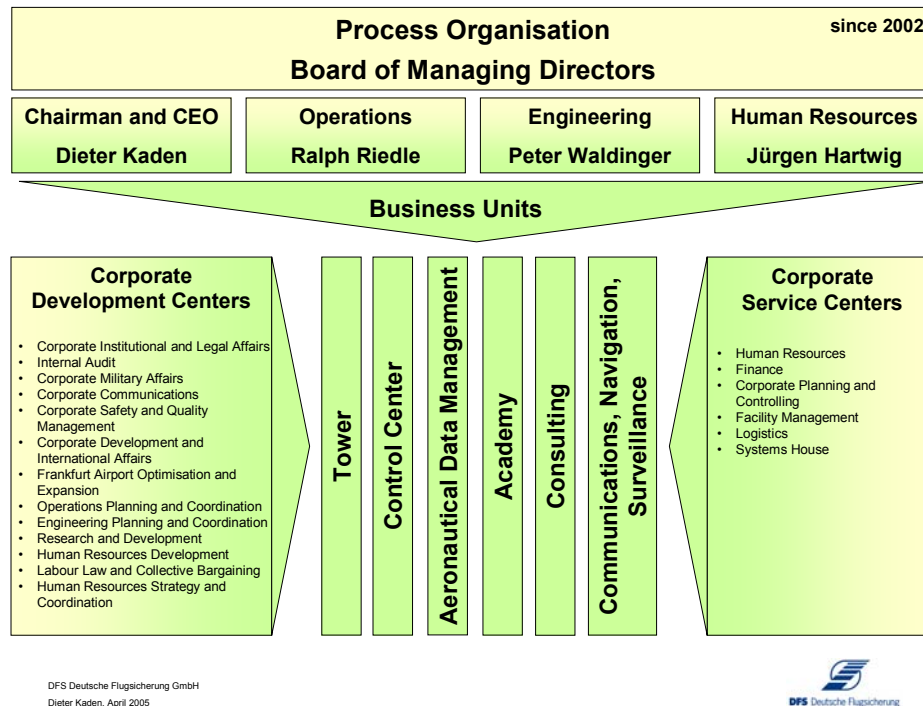
The Ministry of Transport (MOT) has the regulatory oversight as stipulated by law. The MOT is responsible for the legal and functional supervision and plays a supervisory role in all issues relating to safety, user charges, information and liability.

In accordance with the Chicago Convention, the MOT is still the authority for international agreements, as well as for participation in supranational and international organizations (such as ICAO and EUROCONTROL). To do this, it draws on the technical and operational expertise of DFS. Due to the civil-military integration, DFS will be subordinate to the Ministry of Defense (MOD) in times of tension or defense.

The DFS Supervisory Board consists of six representatives of the employer and six representatives of the employees. One of the employer representatives is the Head of the Supervisory Board – a former Minister of Transport, who today is a member of the executive committee of an international industrial consulting firm – two members belong to the Ministry of Transport, one to the Ministry of Finance and two to the Ministry of Defense. The employees are represented by the spokesman of the executive employees, by the chairman of the staff council, by three air traffic controllers and by a union representative.

DFS has a process structured organization with 6 business units, corporate developments centres and corporate service centres, following the key principle: “structure follows strategy”.

Process-oriented organisation



The realization of DFS objectives and strategies required an efficient and well-performing organization. This organization has to ensure the marketability and quality of services, enabling entrepreneurial initiative, flexibility and manageability.

It has to consolidate its strategic position, enabling DFS to be a key player on a European and international level in the future.

Principles of the DFS process-oriented organization are:

- External as well as internal customers are the focal points of all activities
- All activities which contribute to well-defined business processes are integrated to reduce the number of interfaces and related work
- A top-down approach is taken towards planning processes to ensure better assignments and higher individual responsibilities and self-control
- Customers, service attitude and value chains are the key factor to achieving continuous process improvements

They all follow the key principle “structure follows strategy”

Based on these process principles, the following organizational processes were set up:

1. Business units, like Control Center, Tower, CNS (Communications, Navigation, Surveillance) focus on external customers.
2. Corporate Service Centers (CSC) like Human Resources, Finance, Corporate Planning and Controlling are important supporting processes which focus on internal customers.
3. Corporate Development Centers (CDC) like Corporate Development and International Affairs, Corporate Safety and Quality Management, Corporate Institutional and Legal Affairs are consultants focusing on the further development of DFS.

Financing

1. DFS finances itself mainly by drawing on a capital market program
2. All airspace users must be treated equally when it comes to providing services and calculating user charges in Germany
3. DFS has not received any federal subsidies since the initial restructuring in 1993
4. In future, user charges will be subject to economic regulation

2. Financing

DFS finances itself mainly by drawing on a capital market programme. The total program amounts to € 1.0 billion (€ 0.5 billion for the commercial program, € 0.5 billion for the medium-term note program). The currently outstanding volume of the medium-term note program is € 310 million, the commercial paper only being issued for arbitrage purposes. The net financing volume after deduction of the financial investments is currently about € 90 million. In addition, DFS disposes of a back-up bank credit line of € 161 million.

The interest rates are based on the existing rating which up until now has been affirmed as AAA/Aaa by Standard & Poor's and Moody's. Depending on the tenors, the spread to the market rate is almost flat. With regard to the privatization, we expect credit spreads to rise according to the extent of the downgrading.

The en-route charges are calculated and billed by EUROCONTROL according to the "Principles for establishing the cost base for route facility charges".

When DFS took over the provision of air navigation services from the former federal authority BFS, this did not change. Terminal charges were introduced in Germany on 1 July 1990. They are billed by DFS itself and not by EUROCONTROL. This facilitates optimal control of accounts receivable. Between 1990 and 1992, terminal charges ensured a 50 per cent cost recovery, while in 1993 cost recovery was 100 per cent.

All airspace users must be treated equally when it comes to providing services and calculating user charges in Germany. Classification of users would be against the law. There are only two exceptions: the first one is the flat rate which applies to general aviation, and the second one is made for military operational air traffic (OAT). The military also reimburses DFS for military-related costs but this is based on a separate agreement between DFS and the Ministry of Defense.

DFS has not received any federal subsidies since the initial restructuring in 1993. On the contrary, DFS pays the government for all ANS-related costs, especially the costs of departments in the Ministry of Transport dealing with ANS as well as fictitious pension costs of those civil servants who used to work for the air navigation services, as well as tax, dividends and amortization of a loan.

Next to safety and service quality, the level of user charges is of the utmost importance. The incentive to keep user charges competitive stems from tough competition in Europe. This is promoted by EUROCONTROL with its Performance Review Commission and its Performance Review Reports as well as the Enlarged Committee for User Charges in which airspace users participate. Airspace users and other stakeholders are heard in many other fora in Europe as well.

In future, user charges will be subject to economic regulation. Regulated user charges will allow the "necessary" costs of service to be recovered.

3. Key Performance Indicators

SAFETY

1. Changes Made to Ensure and Improve Safety

- Continuous, active involvement in the EUROCONTROL Safety Team and as Advisor to the German Commissioner in the Safety Regulation Commission
- 1995 Adoption of “DFS Safety Strategy” in line with EUROCONTROL Standards
- 1996 Adoption of “DFS Safety Policy and Principles” and start of “SMS Project”
- 1997 Establishment of “DFS Safety Management Directorate”
- 1998 Establishment of “DFS Safety Management System (SMS)”
- 1999 Process-oriented reorganization of SMS and integration of security management into one management system
- 2000 Adaptation of SMS to the new EUROCONTROL ESARR3 requirements
- 2001 Establishment of procedure “DFS Reporting and Assessment of Safety Occurrences in ATM” according to ESARR2 requirements
- 2002 Establishment of procedure “DFS Risk Assessment and Mitigation” according to ESARR4 requirements
- 2004 Establishment of procedure “ATM Services Personnel” according to ESARR5 requirements
- 2004 Formal certification of the DFS SMS by national regulator (done by an accredited organization)

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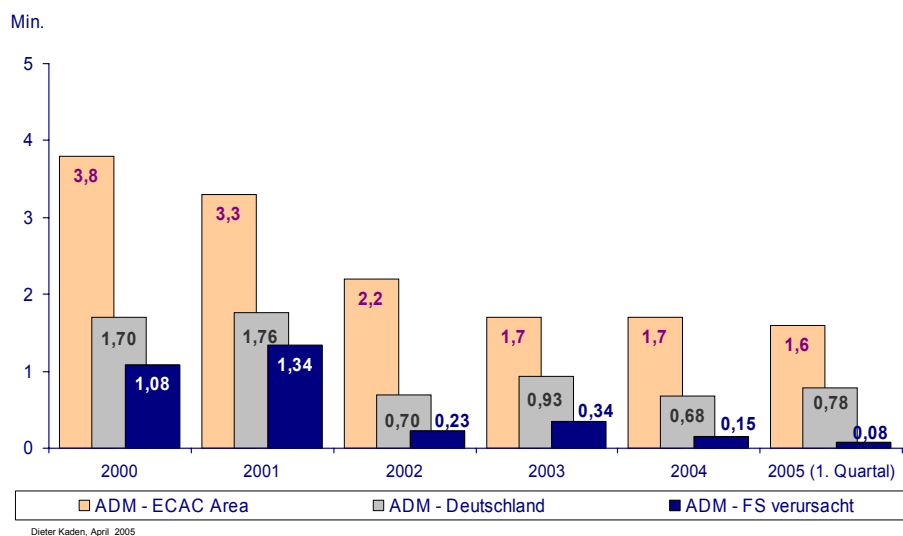


Our primary corporate objective – the safety of air traffic – has by no means suffered. On the contrary: while 265 aircraft proximities were investigated in Germany in 1971, there were only 33 airproxes of the risk-bearing categories A and B in 1994, of which 14 were ATC-related. And from 1995 until today the number of ATC-related airproxes of these categories has decreased to 5 or even less every year, despite a cumulated traffic growth of 35 per cent within the same period.

In 1995, we introduced a corporate Safety Strategy, which led to the development and implementation of our Safety Management System in line with international standards and best practices. In addition, the EUROCONTROL Safety Regulation Commission, established in 1998, adopted several Safety Regulatory Requirements on ATM Safety Management to be fulfilled by the Member States. In 2004, our Safety Management System was formally audited by an external company and certified by our regulator to be fully compliant with the EUROCONTROL Safety Regulatory Requirements (ESARR).

EFFICIENCY

Average ATFM delay per movement (ADM)



Our efficiency has significantly increased. Despite the rise in traffic, Europe has seen a general reduction in delays caused by air traffic flow management measures. This is thanks to capacity increases by the air navigation services. Certainly, one important aspect is that since 1994 we have been able to use the scarce resource “airspace” in a more flexible and efficient way because regional military air traffic control is entirely integrated into our corporation. One organization using one sky according to the Flexible Use of Airspace (FUA) concept.

In terms of delays caused by air traffic flow management measures, 2004 has the best record since the EUROCONTROL CFMU was established. DFS is synonymous with punctuality. 96 per cent of all flights controlled by DFS reached their destinations without any ATC-related delays and the ADM (average delay per movement) at DFS is 0.15 minutes, whereas it amounts to 1.7 minutes within the States of the European Civil Aviation Conference (ECAC).

The corporatization generally paved the way for opening airspaces including military airspaces, implementing more cost-effective flight profiles and optimising control procedures between neighboring countries, air navigation services units and sectors.

KPI – Cost-control Measures

- **Establishment of an internal accounting unit / controlling process**
- **Establishment of an efficiency programme**
- **Introduction of bonus schemes for all employees (Company bonus, “Faktor X”) rewarding individual and company performance**

- **Outsourcing of flight calibration services into a joint venture company (FCS)**
- **Outsourcing of AIS database services into a joint venture company (EAD)**
- **Development of commercial activities outside ATC (turnover app. € 25 million p.a.) to use resources in times of overcapacity**

Operating efficiency is being assessed in comparison with other European air navigation service providers. DFS has provided operational data to EUROCONTROL's Performance Review Commission (PRC) since 1999. The most important Key Performance Indicators are cost-effectiveness and efficiency of production.

Numerous cost-control measures along a balanced scorecard have been implemented which could not have been implemented by BFS, for example the establishment of an internal accounting unit/controlling process, the establishment of an efficiency programme, introduction of bonus schemes for all employees rewarding

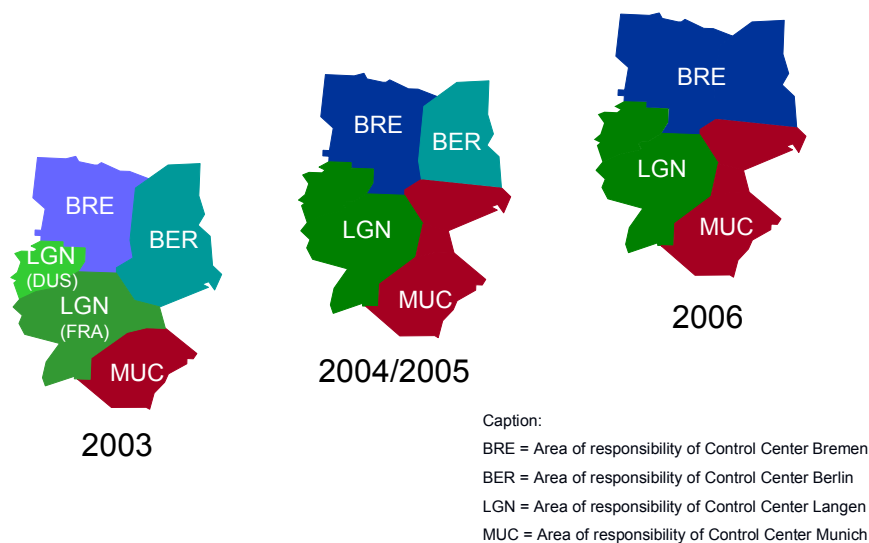
individual and company performance, outsourcing of flight calibration services into a joint venture company (FCS), outsourcing of AIS database services into a joint venture company (EAD), development of commercial activities outside ATC to efficiently utilize resources in times of overcapacity.

4. Stakeholder Issues

Customers

The corporatization of the air navigation services in Germany in the early nineties was in line with the political mandate to become more productive. It aimed to increase economic benefit while maintaining or improving the service level for DFS customers.

Areas of responsibility of DFS area control centers (ACC) and their future development



To meet our customers' requirement to perform efficient air traffic services, DFS has taken far-reaching action to reorganize the company. This has led to optimized airspace structures and enhanced operational processes. An essential part of the reorganisation was, in a first step, the integration of 17 approach control units with area control centers. The follow-up step is the consolidation of the control centers by

reducing the number of control centers from six to four, by transferring Düsseldorf to Langen in 2002 and Berlin to Bremen in 2006.

DFS aimed to realize synergy effects and, thus, reduce the administrative and technical sections of the control centers. Furthermore, the consolidation of control centers has led to savings in the field of systems development since fewer systems have to be upgraded. The major aspect of the center consolidation concept was making sure that the size of a control center would still be manageable.

When the center consolidation concept was approved in 1995/1996, cost savings of up to € 50 million were envisaged. This calculation did not take account of savings due to higher efficiency levels. Dynamic developments in Europe (Single European Sky) have made it necessary to carry on with the center consolidation planning process and the systems development planning.

Our customers benefit in two ways: firstly, they are able to operate their aircraft even more efficiently and, secondly, we pass on our cost savings to airspace users.

Furthermore, customers are represented in the Advisory Board of our cooperation. Through a number of official and personal contacts with users of the air transport system, we know what they expect of us. For example, a Customer Relationship Management system was established to provide our customers with newsletters, initiate customer surveys and include the results in a quality management process. It also organises customer hearings and participates in international ATM working groups.

In contrast to a large centralised authority, a corporation under private law, where short communication channels exist and where the responsibilities with regard to manpower and finances are clearly defined, can more easily make necessary reorganizations which, in certain cases, can be very complex. Our customers who are also organized in corporations under private law were well aware of this. This is why they supported us in our corporatization process. When BFS was corporatized, our customers knew that we would lose government subsidies of up to € 92 million per year and that this would lead to an initial increase in user charges to offset expenses. And their support has paid off. Productivity has increased. Between 1993 and 2005, en-route traffic increased by 175 per cent, whereas the user charges only increased by 0.6 per cent. For the terminal area within the same period, air traffic increased by 47.8 per cent, whereas user charges were reduced by 37 per cent.

Employees

A project such as our corporatization could only be successful with the support of motivated employees. For forty years, German air traffic controllers had been at the lower end of the European pay scale.

Today, air traffic controllers worldwide are earning salaries which are at the top of the scale. In Germany, they are able to earn up to 25 per cent more in net terms than prior to corporatization. However, not all employees in the operational services reach the top salary. For the first time in the history of the air navigation services, our collective agreements take account of the employee's work location, performance and workload. During our negotiations with the trade unions, we also succeeded in pushing through the lifting of the age of retirement and the reduction of paid breaks by 2.5 hours per week. Salaries of employees in non-operational areas are oriented towards market conditions. Increases in efficiency within the whole company are ensured through a large-scale promotion and further training program and through an Integrated Quality Management Approach. Therefore, only 24 out of 2,400 air traffic controllers have decided to retain their civil servant status.

At the same time, other organizational and personnel reforms have been made, such as the improvement of working conditions and processes. New employees have been hired. As a result, employees have become more motivated and the German public has taken notice of the good work performed by the air navigation services.

Communicating the change process has helped to keep the positive spirit among DFS employees alive. Besides a continuous flow of information, we have integrated the associations and the staff council into the change process, and we have set up task forces to involve employees in the development of our vision and strategy.

The entire cultural change took place by a bottom-up approach, including the company's constitution and the management vision.

5. Modernization

When we require new technical equipment, we make our decisions in line with operational cost-benefit considerations within the shortest time possible and not in line with lengthy procedures and the bureaucratic constraints of a State budget. Flat hierarchies, a new corporate culture, well-trained and, above all, motivated employees, a large-scale technical overhaul and economic prudence are our maxims.

Modernization

- Modernization of most of the technical infrastructure
- Expansion of none-core activities
 - Consulting, data management, production of maps and charts, maintenance, simulations and training
- Development of a financial investment strategy
 - DFS ESSP
 - FCS Flight Calibration Services GmbH
 - GroupEAD Europe S.L.
- Single European Sky
- Privatization of DFS

Technical modernization: We use state-of-the art tools, for example SAP/PS for a structured project management process. We built up an R&D unit to evaluate new technologies and simulate new system operation, established inhouse capabilities for software development, modernized the entire ATM system and the CNS technical infrastructure. The whole capital expenditure program, which was realised between 1993 and 2004, amounted to € 1.5 billion. This corresponds to the modernization of almost everything.

Not only have we increased efficiency in our core business of air traffic control, but we have also expanded our non-core activities. Between 1993 and 2005, DFS has explored and taken business opportunities in the fields of consulting, data management, production of maps and charts (mainly for VFR flights), maintenance, simulations and training.

In 1995, DFS established a separate business unit called "Consulting" in order to respond to market requirements outside the core business area. According to an agreement with the Supervisory Board, DFS Consulting is authorized to sell DFS expertise to interested customers. Actual full costs are the calculation basis in order to avoid cross-subsidising with user charges; highly competitive market prices are the ongoing challenge. Products and services focus on air traffic control and the relevant interfaces to airports. The services performed by Consulting further include studies,

system implementation and technical support, organisational concepts, airspace planning and restructuring, procedures planning, training, safety analyses, cost-benefit analyses, tendering support and general consulting for all management levels.

Another example is the DFS business unit Aeronautical Data Management. In a business-oriented approach, we have used our expertise to develop and produce aeronautical charts for the national German airspace, and we have joined forces with the Spanish and Polish ANSPs to produce harmonized charts for the whole of Europe across national European borders. Market-oriented contractual solutions and multinational commercial services such as airspace and airport simulations help not only to enhance know-how but also to build up confidence in DFS abilities. This non-core business is conducted independently of taxpayer monies and user charges.

DFS subsidiaries and affiliated companies

Apart from these modernization issues, DFS also developed a financial investment strategy, which is based on the principle that all shareholdings (or cooperations) have to provide an added value to DFS (and consequently to the DFS shareholder).

This added value may be accomplished in different ways, such as reducing costs for support processes, a defined return of investment in the form of dividend payments, investment in future markets and technologies to secure revenue in the future, just to name a few.

Following this rationale, up to the present day, DFS has founded a 100% subsidiary to hold shares in the EGNOS operation model, together with seven other ANSPs.

We founded

1. FCS Flight Calibration Services GmbH (FCS), a German limited liability company based in Braunschweig. It is a joint venture company and the shareholders are DFS (55%) and the Austrian and Swiss ANSPs. By joining forces, the partners were able to considerably reduce their process costs, i.e. the cost per flight hour for calibration. For example, DFS has successfully cut 40 per cent of costs over the years.
2. GroupEAD Europe S.L. (GEAD), a Spanish limited liability company based in Madrid, a joint venture company by DFS (36%), AENA and Frequentis, an Austrian high-tech company, with the objective to permanently secure the contract for the operation of the Eurocontrol-owned European AIS Database (EAD). The first 5-year contract started in mid-2003. The goal of receiving a 6

per cent dividend on the invested share capital of € 360,000 has been achieved so far (dividend payments in 2002 and 2004).

Another reason for modernization certainly is the Single European Sky (SES). At the end of the nineties, the European Commission put the harmonization of European ATC back on the political agenda. This was mainly due to the steady increase of delays in Europe and the related negative publicity in the newspapers during holiday seasons.

With the implementation of the Single European Sky Directives of the European Union, some elements of competition will be introduced in future European ANS. Air navigation service providers (ANSPs) will have to be certified and – in theory – any certified air navigation service providers may bid for services in any State of the European Union if the State chooses to call for tenders for ANS in its airspace. Therefore, ANSPs will have to become more competitive in future in order to safeguard their further existence in the long run. This entrepreneurial approach can only be achieved by a company where government holds a minority stake only – this is based on political principles in Germany.

DFS Plan for Privatisation

Main points of the government decision of 15 December 2004

The government intends to sell 74.9% of DFS

Air traffic services remain a task of the State (sovereignty issues)

Civil-military integration of ATC will be maintained

A national supervisory authority will be established

The cost for supervision will be financed by user charges

The privatization shall be completed by 2006

MoT is tasked with the preparation work for the legal changes

Since 2004, the German Ministry of Transport has been preparing for the privatization of DFS. The relevant government decision was published on 15 December 2004. The key elements in the privatization are:

- The government wants to sell 74.9 per cent of DFS
- Air traffic services remain a State task (sovereignty issue)
- Civil-military integration of ATC will be maintained
- A national supervisory authority will be established
- The costs for the supervision will be financed by user charges
- The privatization shall be completed by 2006
- The MOT is tasked with the preparation work for the legal changes

DFS supports this decision because it will help us to prepare ourselves for the challenges posed by the European liberalization process.

Conclusion

Since 1993 – From BFS to DFS

- We changed the entire civil-military airspace structure
- We modernized almost all CNS and ATM systems
- We re-organised our organizational structure, while enhancing safety and productivity
- We handled a traffic increase of 175%, while user charges increased by only 0.6%
- We changed the corporate culture from a federal authority to a company operating in a competitive environment

The driving force behind all of this is:

**Delivering value for money
for the benefit of all stakeholders**

To sum it up, the corporatization of DFS in 1993 has marked the beginning of a new era in the history of air navigation services in Germany:

- We changed the entire civil-military airspace structure, reducing the number of sectors
- We modernized almost all CNS and ATM systems

- We re-organised our organizational structure, while enhancing safety and productivity
- We handled a traffic increase of 175%, while user charges increased by 0.6%
- We changed the corporate culture from a federal authority to a company operating in a competitive environment

The driving force behind all of this is: We want to deliver value for money for the benefit of all stakeholders!

Aviation in Europe has taken on a new perspective. DFS will do its utmost to ensure that the air navigation services in Germany will never again become a limiting factor in the air transport system.

Mr. Chairman, Ranking Democratic Member, Members of the Subcommittee, thank you very much for your kind attention. I hope my statements will be useful to you and I will be pleased to answer your questions.